Claims

1. A process for producing a B/N/C/Si ceramic from a borazine precursor, characterized in that the borazine precursor is B-tris(hydrosilylvinyl)-borazine and this is converted into ceramic by pyrolysis.

2. The process as claimed in claim 1, characterized in that the B-tris(hydrosilylvinyl)borazine is prepared by hydrogenation of B-tris(trichloro-silylvinyl)borazine.

3. The process as claimed in claim 2, characterized in that the B-tris(trichlorosilylvinyl)borazine is prepared from B-triethynylborazine by hydrosilyla-tion.

4. The process as claimed in claim 1, characterized in that the B-tris(hydrosilylvinyl)borazine is pyrolyzed.

5. The process as claimed in any of claims 1 to 4, characterized in that the B-tris(hydrosilylvinyl)-borazine is applied in liquid form and is subsequently pyrolyzed.

6. The process as claimed in claim 5, characterized in that B-tris(hydrosilylvinyl)borazine is dissol-ved in a solvent and is made thixotropic.

7. The process as claimed in claim 5 or 6, charac-terized in that B-tris(hydrosilylvinyl)borazine or a solution thereof is applied by painting or spraying and is subsequently pyrolyzed.

8. The process as claimed in any of claims 1 to 7, characterized in that the B-tris(hydrosilylvinyl)-borazine is, after a prepyrolysis, converted into a high-temperature ceramic at a higher temperature in the range from 1000°C to 2000°C, in particular 1100-1300°C.

9. The process as claimed in any of claims 1 to 8, characterized in that the precursor is doped with a metal or a metal compound to produce a doped ceramic.

10. The process as claimed in any of claims 1 to 9, characterized in that the molecules of the borazine precursor are one-dimensionally or two-dimensionally crosslinked prior to the pyrolysis.

11. The process as claimed in claim 1, characterized in that the precursor is B-tris((phenyldihydrosilyl)vinyl)borazine, B-tris((methyldihydrosilyl)-vinyl)borazine or an amine.

12. A ceramic produced as claimed in claim 1, characterized in that it is substantially pore-free.

13. The ceramic as claimed in claim 12, characterized in that it is a substantially oxygen-free high-temperature ceramic.

14. The ceramic as claimed in claim 12, characterized in that it is a semiconductor.

15. The ceramic as claimed in claim 12, characterized in that it has been doped with metal.

16. The use of the ceramic produced as claimed in

claim 1 for producing a heating element.

17. The use of the ceramic produced as claimed in claim 1 for producing a coating.

18. The use as claimed in claim 15, characterized in that the coating is antistatic.

19. The use as claimed in claim 15, characterized in that the coating is an interior coating, in particular of a pipe.

20. The use of the ceramic produced as claimed in claim 1 for producing a semiconductor.

21. The use of the ceramic produced as claimed in claim 1 as a medical implant.

22. The use as claimed in claim 21, characterized in that the ceramic has been doped with metal.